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Presented March 1828

An Inaugural Essay  
on  
Bilious Fever,  
As it prevailed in Mecklenburg  
County, Virginia;  
for  
the degree of Doctor of Medicine  
in  
The University of Pennsylvania,  
by  
James H. Gregory, of Virginia.

"The rivers die into offensive pools  
And, charged with putrid verdant breath, a gross  
And mortal nuisance into all the air."

Philadelphia, November the 16<sup>th</sup> 1827.



Of the Ratio Symptomatum, and Pathology of the disease now under consideration; no precise account has ever been given by writers on the various forms of bilious fever; as far as I know.

That it had its origin in the stomach I am fully persuaded from the cause, symptoms, and the treatment which succeeded in arresting its progress; and also from the appearances upon dissections after death.

For several years previous to the appearance of this disease, the neighbourhood in which it prevailed, had been frequently visited by the various other forms of bilious fever, but never before





by one of such a character as this until the fall of the year 1825.

The spring, and summer were very wet; we had frequent and heavy showers of rain for successive days, alternating with an intensely hot sun. During this time no disease appeared, the rain ceased for a short time, and the weather remained exceedingly warm, about the middle of september the rain commenced again, and continued for sometime longer.

About the 20<sup>th</sup> of september the disease above alluded to; made its appearance, and was supposed (from the manner in which it commenced its terrible ravages) to be the unexpected effect of a large

by one of such a character as this  
called the fall of the year 1855.  
The spring and summer  
and we had frequent and  
long showers of rain for months  
days alternating with an interval  
of sun. During this time we have  
experienced the most violent  
drought and the most  
unusually warm, that the world  
has known. The rain commenced  
again and continued for several  
days.  
About the 1st of Sept.  
when the rain began to fall in  
with its abundance and was not  
checked (from the winter in which it  
commenced the little season) it  
is the unexpected effect of a long

quantity of green timber thrown into a pond of stagnant water which was left in that situation by the stream having been turned from its former course at the head of a mill pond. From this pond (in which the timber was in a state of high fermentation, and putrefaction) there escaped a pestiferous miasma which produced in all who were within its reach (the blacks generally excepted, though some suffered) a most violent form of bilious fever, commencing with those who were nearest to it. It became an object of terror to every person who was obliged to remain in the immediate neighbourhood of it.

It is well to remark here



that there were frequent fogs, and I may say on nearly every morning. They were of uncommon duration, remaining until from about half past ten to half past eleven o'clock A.M.

This the above mentioned timber was cut down with a view to prepare land for cultivation, and was thrown into this pond, for the purpose of filling it up; and also ~~cut~~ with a view of getting the timber out of the way.

This was done during the months of July, and August, and as I have before said the disease showed itself about the 20<sup>th</sup> of September, and continued until several heavy frosts had come, when it disappeared. I will remark that before the cultivation of the cotton crop that the neighbourhood had never been visited by

that there were frequent days, and I  
may say in nearly every morning, during  
one of my walks, when I was  
in my usual form, about half past six  
to half past seven, I walked off to the  
left. The advice was given to me  
not to return with a view to business,  
but for recreation, and was then  
with this view, for the purpose of  
seeing it up, and also with a view  
of getting the timber out of the way.  
This was done during the winter  
of last, and during which I have before  
said the business of the office, about the  
first of September, and on that day  
I received many letters and other orders  
and business. I had much to do  
in the execution of the work, and  
my business had been very much

any violent form of fever; except in one instance, and that was on the fall of the year 1821. and that was the subject of a considerable controversy.

Marsh Miasmata appears evidently to have been the remote cause of the disease; and it had for its exciting cause an exposure to cold, and also the excessive heat of the midday sun or excess in eating, or drinking, or some of the passions of the mind; as anger, fear, grief &c

Symptoms. As in most other violent forms of disease, It was ushered in with a chill sometimes (though rarely) amounting to shivering, with violent pain in the head, with much oppression about the praecordia, and sometimes even pain at that point; in some instances, the pa-





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-tient complained of an uneasiness or pain  
across the region of the liver; the pulse  
was quick, tense, and corded, and not  
easily compressed; a hurried, or difficult  
respiration, with frequent, and heavy sighs.  
In most instances, there was much coma  
and not unfrequently delirium, and in  
the most violent cases terrible distortions  
of the face, and also great flushes of heat  
both of which would seem to denote a pro-  
pensity, or some other affection of the brain.

In some cases the pulse was full, and fre-  
quent which was to be met with in the  
less violent forms of the complaint.

The skin was dry, and hot, particular-  
ly about the head, and epigastrium; it  
was also very yellow over the whole  
surface of the body. The tongue was dry  
and covered with a dark brown



incrustation; the urine was scanty, and very highly coloured, and when voided, imparted a burning pain to the patient. Not unfrequently, cases were to be met with in which the patient was troubled with great nausea, and would often discharge from his stomach a dark acrid bilious matter, very much of the colour, and consistence of indigo mud. He was troubled with great thirst, and was void of appetite. For many days previous to the attack the patient was troubled with loose bowels though the stools were scanty; very offensive, and attended ~~with~~ with a smarting pain when voided. There was much torpor about the system, and particularly about the intestines. This was clearly evinced by the immense quantity of medicine that was



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required to operate on the bowels.

The disease in most cases assumed the intermittent form, and particularly that of the tertian, and if proper measures were not taken to arrest its progress the aggravia gradually decreased until it became one continued fever.

As I have already said the cold stage was scarcely perceptible, and I think it well to remark here, that the less violent the cold stage the more violent was the hot one, and "vice versa."

The critical days were as usual in the other forms of bilious fever; but about the ninth day in particular the patient was thought to be at the most critical period, as more persons died on that day and the day after than on any other.

Treatment. To this part of my sub-



-ject I will call your attention more particularly, as the regular, or common course of practice was employed with entire unsucces: whereas practice (I may say almost empirical) succeeded in the happiest manner. Though notwithstanding some of the symptoms were deceptions, they were generally well developed, as Dr. Chapman very justly observes there are cases sometimes to be met with in practice that are not amenable to any of our regular resources and that experience is our only guide.

The symptoms heretofore alluded to, as deceptions, is that of the tense, and corded pulse which was frequently to be met with in this disease, and which by some is always supposed to call for the use of the lancet.





Its occurrence in this disease is perhaps one of the exceptions to this rule. As a general rule this sort of pulse does demand the employment of bloodletting.

There are similar states of the system on record though they are rarely to be met with. Instances may be found in Doctor Rush's medical inquiries.

He says that there are cases in which the pulse would not yield to either to frequent, or copious bleedings. That you might bleed a patient to death without affecting the slightest change in his pulse. He adds that a tense pulse does not always call for the use of the lancet, nor even does ~~six~~ blood, I am fully convinced. I have seen <sup>says</sup> several cases of incurable consumption from tubercles, and ulcers in the lungs in which

the occurrence in the vision to judge  
one of the necessities of this work. For a given  
time, and in this sort of order, and in  
which the number of copies is not to be  
less, and similar to that of the original  
in every thing, they are made to  
be not only, but also in every thing  
in the same manner as the original  
the way that has been used in  
which the facts would not be so  
in either the present or future the  
things that are not to be of the same  
to which without affecting the original  
to have in his power. The whole of the  
facts are not always and for the use of the  
fact, and even the copy itself, have  
fully examined. There are some things  
as of necessity to be taken from the  
best, and also in the things in which

11 2  
the pulse cannot be made to feel the least diminution of tension from either copious, or frequent bleedings. Cases of hepatic fever are also to be met with which cannot be subdued by this remedy.

I have he observes, met with a tension of the pulse in haemorrhages that would not yield to the lancet; that a patient whose blood was sizzy, three days after loosing a gallon, and a half from his stomach, had a tense pulse the day before he died. "I also saw the last strokes of the pulse tense, in a patient whom I lost in a yellow fever, by a haemorrhage from his nose."

He says that in such cases the only circumstance that would justify blood-letting is in cases of extreme pain, that this remedy is to be preferred to the



use of opium. Dr. Davidge of Baltimore also mentions to have seen similar states of the system in yellow fever.

In the treatment of such cases, say, he some of the patients were bled, and they died; others were not bled, and they also died, but those who were purged freely, and discriminatedly recovered.

Dr. John R. Lucas formerly of Virginia, mentions in a publication in the Medical Recorder, to have seen in the same neighborhood in which this disease prevailed, similar states of the pulse in cases of bilious autumnal fever.

Dr. Cooke also formerly of Virginia has published in the same work, facts similar to those above mentioned.

In the cases which first appeared, the remedies usually employed



in bilious fever, were resorted to, such as moderate bleeding which in particular seemed to be of no avail. the ordinary medicines were given with a view to catharsis which had scarcely the effect of opening the bowels much less that of purging them. In some cases blisters were applied to the head with a view to relieve pain, in other cases the ice cap was substituted which appeared to answer the purpose much better though not altogether sufficient to accomplish the purpose for which it was applied. Diaphoretics were also used, and as a dernier resort mercury was given with a view to salivation, but without effects for it was urged to the greatest extent, and in no case did it produce the slightest ptyalism. These failing together with various other means that were employed, physicians

in the first of these cases, we are led to  
look at the matter as a necessary condition  
of the existence of the subject, to be of the nature  
of a necessary condition, and given with  
it, the existence which has been the  
effect of changing the laws necessary to  
of keeping them, the same case arises  
more applied to the whole will, even to  
active parts, in other cases the same  
condition which appeared to answer the  
purpose must be kept though we have to  
afford to accept it in the first place  
it was applied. In the latter case the  
condition would be necessary and given  
with a view to satisfaction, and in the  
first case it was applied to the particular  
and in the second it was applied to the whole  
system. These facts together with the  
other cases that we have considered, give



were induced to resort to other measures.

The physician on being called to a patient would find him labouring under a chill, or ascertain that he had previously had one, and not unfrequently in a state of coma, or delirium, with much vascular excitement, and in short most of the detailed symptoms present. The practice which proved successful was to moderate the violence of the cold stage, which was best accomplished by warm applications, such as keeping the patient warmly covered in bed, bottles of warm water, or warm bricks, or bags of warm sand, warm drinks &c &c &c.

The next object was to moderate the violence of reaction, which was best done by cold applications, such as the ice cap to the head, and ice applied to pit of the stomach, and by sponging the patient

was induced to visit the other minister  
the physician on being called to a patient  
could find him travelling in the road  
as uncertain that he had previously had any  
and not unpropitiously a whole year, or  
therein, would much rather be a constant  
and in short most of the detailed symptoms  
present the picture which I have  
copied and to make the picture of the  
old case, and it was last completed  
by a new application and keeping the  
patient more or less in bed, and  
more water, or more food, or less of  
more and more, and in short of water  
the next night was to make the  
case of water, which was the  
of cold application such as the use of  
to the head and applied to part of the  
stomach, and by opening the patient

with cold water, or vinegar, or vinegar, and water; this latter seemed to act like a charm in quieting restlessness, also by cold drinks such as balm tea & and where there was great desire for it ice water in small quantities was allowed. During this stage nausea was not infrequent which was remedied by the usual means.

During this stage small doses of calomel were given at very short intervals to quiet irritation, and also with a view to its alterative effects. The sweating stage was generally short and sometimes scarcely perceptible, during this it was only necessary to keep the patient as comfortable as possible.

The next object was the treatment during the apyrexia, as soon as the sweating stage was past, a large dose of calomel, and jalap with 3 or 4 grains of

and with the various circumstances  
which the latter presents, it is a  
very interesting subject, and one of  
which each of us has the knowledge  
and power to do much for it. In  
many of our cities and villages, during  
the winter season, we are not infrequently  
asked to contribute to the relief of  
the poor. This is a most noble  
and generous act, and one which  
should be encouraged and  
promoted. The winter season is  
also a time when the poor are  
most in need of assistance, and  
it is a time when the wealthy  
can do much to relieve their  
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gamboge were given, or in place of the jalap scammony was often given which seemed to act more promptly. this would seldom procure more than three, or four stools, and they would be scanty, twenty or thirty minutes after giving this dose senna tea was given freely until the patient was freely purged; not infrequently these large doses of medicine would have to be repeated over, and over again, and followed up by senna tea with oil &c, before the purgative action could be induced. When once established large quantities of dark offensive matter, would be discharged, which would (from the immense quantity, and quality) seem to be a morbid secretion of the alimentary canal together with some functional derangement of the liver



injections were also used with a view  
to their purgative effect. The patient on  
going to stool would complain of much  
pain, or irritation but as soon as that  
effect was over if the stool was copious he would  
be somewhat better, than before. The pain  
produced on going to stool was greatly  
relieved by injections of lime water. The  
principal object in the cure of the disease was to  
free the alimentary canal of its irritating contents  
and next to prevent the returning paroxysm  
which was best done by the administration of  
of a dose of opium a few minutes before the  
paroxysm was expected so as to have the system  
under the effect of the medicine at that time  
The room was kept dark, and quiet. No food  
was allowed the patient for several days  
except a little toast water and when  
it became admissible a little chicken water.

